Pre-Calculus Mortgage HW Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**To receive credit, you must show all of your set-up and what is typed into the calculator.**

1. Greg is buying a house selling for $350,000. His bank requires him to make a 20% down payment. The current mortgage rate is 6.5%.
   1. Determine the amount of the required down payment.
   2. Determine the monthly principal and interest payment for a 15-year mortgage with a 20% down payment.
2. The Nicols are buying a house selling for $245,000. They pay a down payment of $45,000 from the sale of their current house. To obtain a new 15-year mortgage at 4.5% interest, the Nicols must pay 1.5 points at the time of closing.
   1. What is the amount of the mortgage?
   2. What is the cost of the 1.5 points?
3. Harry and Ginny Potter have a gross monthly income of $3200. They have 25 remaining car payments of $335. The Potters are applying for a 15-year, $150,000 mortgage at 5% interest to buy a new house. The taxes and insurance on the house are $225 per month. Gringots will approve a loan that has a total monthly payment of principal, interest, property taxes, and homeowners’ insurance that is less than or equal to 28% of their adjusted monthly income.
   1. Determine 28% of the Potter’s adjusted monthly income.
   2. Determine the Potter’s total monthly mortgage payment, including principal, interest, taxes, and homeowners’ insurance.
   3. Do the Potters qualify for this mortgage?
4. Ms. Geshell is looking to buy her first home. She is very excited, but wants to see the maximum she could afford for her house. She makes $35,000 per year, has no student loans (lucky duck), and a car payment of $175 per month. She knows she qualifies for a 30-year mortgage at 5.5% interest. Her taxes will be $90/ month and her insurance is $115/month.
   1. Determine 28% of her adjusted monthly income. Subtract off her monthly payments for taxes and insurance to get her maximum affordable mortgage payment.
   2. Find the principal and interest value for her mortgage in the table. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   3. Divide her adjusted monthly income (a) by her principal and interest value (b). Then multiply by 1000. This is the most she can afford for a house, after her down payment.
5. The Evergreens found a house selling for $113,500. The taxes on the house are $1200 per year, and the insurance is $320 per year. They are requesting a conventional loan from the bank. The bank is currently requiring a 15% down payment and 3 points, and the interest rate is 10%. The Evergreen’s gross monthly income is $4750. They have more than 10 monthly payments remaining on a car, a boat, and furniture. Their total monthly payments for these items is $420. Their bank will approve a loan that has a total monthly mortgage payment of principal, interest, property taxes, and homeowners’ insurance that is less than or equal to 128% of their adjusted monthly income.
   1. Determine the required down payment.
   2. Determine the cost of the 3 points.
   3. Determine 28% of their adjusted monthly income.
   4. Determine the monthly payments of principal and interest for a 20-year loan.
   5. Determine their total monthly payment, including homeowners’ insurance and taxes.
   6. Determine whether the Evergreens qualify for the 20-year loan and explain your reasoning.
6. Mr. Perry is buying a condo selling for $95,000. The taxes on the property are $1500 for the year, and the homeowners’ insurance is $336 per year. Mr. Perry’s gross monthly income is $4000. He has 15 monthly payments of $135 remaining on his car. The bank is requiring 20% down and is charging 7.5% interest with no points. His bank will approve a loan that has a total monthly payment of principal, interest, property taxes, and homeowners’ insurance that is less than or equal to 28% of his monthly income.
   1. Determine 28% of his adjusted monthly income.
   2. Determine the monthly payment of principal and interest for a 25-year loan.
   3. Determine his monthly payment, including homeowners’ insurance and taxes.
   4. Does Mr. Perry qualify for the loan?
   5. Determine how much the first payment on the mortgage is applied to principal.
   6. Determine the total amount he pays for the mortgage with a 25-year conventional loan. (Do not included taxes or homeowners’ insurance.)
   7. Determine the total interest paid for the 25-year loan.